

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P588686

Luminaire Tested: **24CGTS-NUV-HI-5000K**

Issue Date: 12/3/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P588686  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( LCS210329021BSA)  
Test Lab:  
Issue Date: 12/3/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CGTS-NUV-HI-5000K  
Description: 2X4 CGT SELECT TROFFER AT HI LUMEN OUTPUT AND 5000K COLOR SETTING  
  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

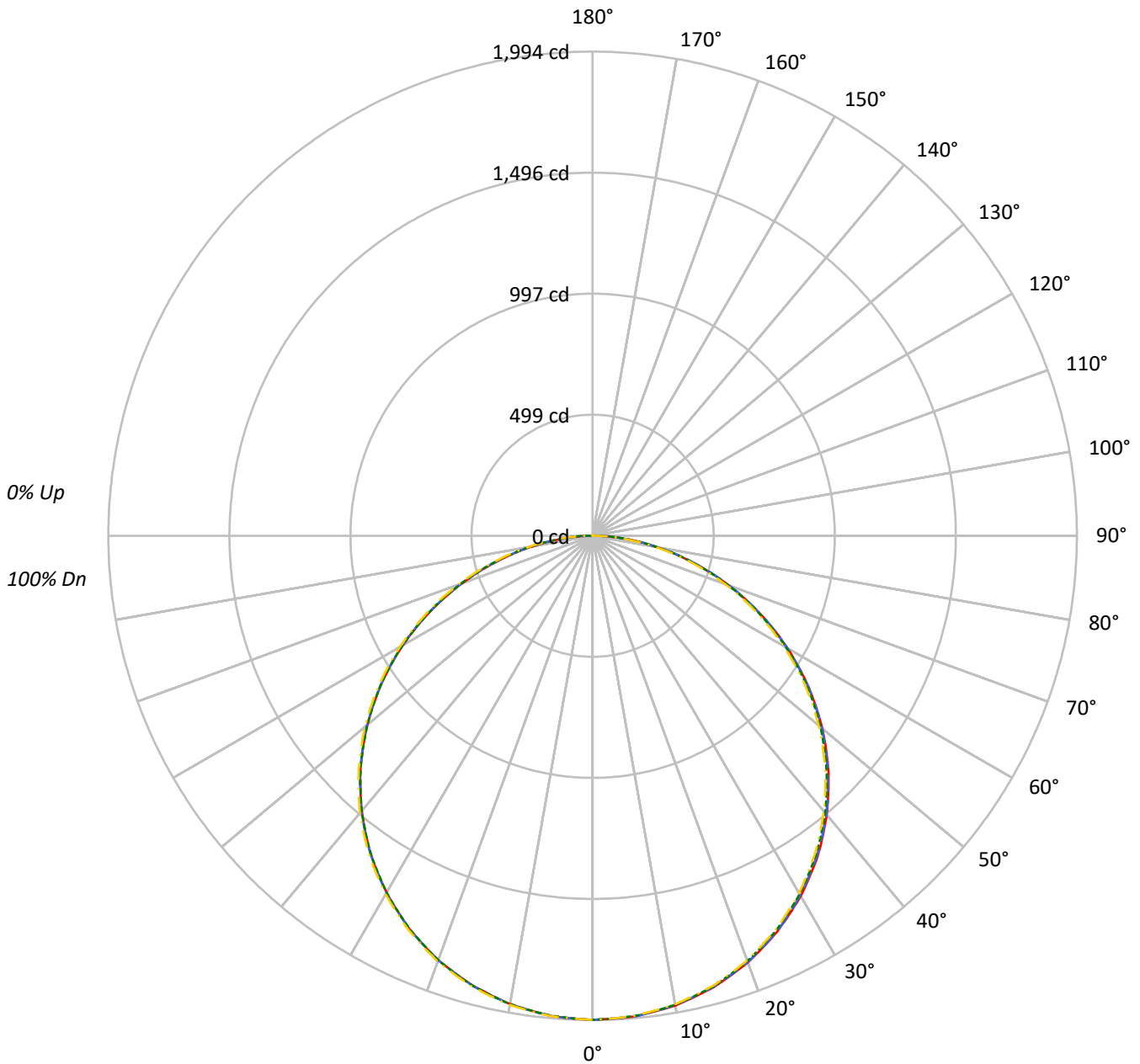
Lumens per Lamp: 4179.4 (1 lamp)  
Luminaire Lumens: 5898.0 lumens  
Efficiency: 141.1%  
Efficacy: 117.3 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 50.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

TEST NUMBER: P588686

CATALOG NUMBER: 24CGTS-NUV-HI-5000K

### Luminous Intensity Polar Plot





TEST NUMBER: P588686

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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF  | 20  |     |     |     |     |     |     |     |     | 20  |     |     |     |     |     |     |     |     | 20 |    |   |  |  |  |  |  |  | 20 |  |  |  |  |  |  |  |  |   |
| RC  | 80  |     |     |     |     |     |     |     |     | 50  |     |     |     |     |     |     |     |     | 30 |    |   |  |  |  |  |  |  | 10 |  |  |  |  |  |  |  |  | 0 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 | 0 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 0   | 168 | 168 | 168 | 168 | 164 | 164 | 164 | 164 | 157 | 157 | 157 | 150 | 150 | 150 | 144 | 144 | 144 | 141 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 153 | 146 | 140 | 134 | 149 | 143 | 137 | 132 | 137 | 132 | 128 | 131 | 127 | 124 | 126 | 123 | 120 | 117 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 139 | 127 | 117 | 109 | 135 | 124 | 115 | 107 | 119 | 111 | 105 | 114 | 108 | 102 | 110 | 105 | 100 | 97  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 126 | 111 | 99  | 90  | 123 | 109 | 98  | 89  | 104 | 95  | 87  | 100 | 92  | 86  | 97  | 90  | 84  | 81  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 115 | 98  | 85  | 76  | 112 | 96  | 84  | 75  | 93  | 82  | 74  | 89  | 80  | 73  | 86  | 78  | 72  | 69  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 106 | 88  | 75  | 65  | 103 | 86  | 74  | 65  | 83  | 72  | 64  | 80  | 71  | 63  | 77  | 69  | 62  | 59  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 98  | 79  | 66  | 57  | 95  | 77  | 65  | 56  | 75  | 64  | 56  | 72  | 63  | 55  | 70  | 62  | 55  | 52  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 91  | 71  | 59  | 50  | 88  | 70  | 58  | 50  | 68  | 57  | 49  | 66  | 56  | 49  | 64  | 55  | 49  | 46  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 84  | 65  | 53  | 44  | 82  | 64  | 52  | 44  | 62  | 52  | 44  | 60  | 51  | 44  | 59  | 50  | 43  | 41  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 79  | 60  | 48  | 40  | 77  | 59  | 48  | 40  | 57  | 47  | 40  | 56  | 46  | 39  | 54  | 45  | 39  | 37  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 74  | 55  | 44  | 36  | 72  | 54  | 43  | 36  | 53  | 43  | 36  | 51  | 42  | 36  | 50  | 42  | 36  | 33  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 90°  | 180° | 270° |
|-----|------|------|------|------|
| 0°  | 2683 | 2683 | 2683 | 2683 |
| 5°  | 2684 | 2681 | 2681 | 2679 |
| 10° | 2684 | 2679 | 2676 | 2676 |
| 15° | 2681 | 2676 | 2669 | 2671 |
| 20° | 2678 | 2668 | 2663 | 2663 |
| 25° | 2670 | 2659 | 2651 | 2650 |
| 30° | 2662 | 2648 | 2637 | 2636 |
| 35° | 2652 | 2635 | 2621 | 2619 |
| 40° | 2634 | 2616 | 2597 | 2598 |
| 45° | 2613 | 2592 | 2571 | 2571 |
| 50° | 2584 | 2562 | 2533 | 2534 |
| 55° | 2546 | 2526 | 2489 | 2491 |
| 60° | 2495 | 2473 | 2427 | 2434 |
| 65° | 2428 | 2407 | 2347 | 2359 |
| 70° | 2344 | 2325 | 2245 | 2267 |
| 75° | 2235 | 2226 | 2116 | 2154 |
| 80° | 2087 | 2094 | 1936 | 2015 |
| 85° | 1944 | 1859 | 1663 | 1814 |



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

| Zone            | Lumens        | % Fixture   | % Lamp       |      | 0°   | 90°  | 180° | 270° | 360° | Flux |
|-----------------|---------------|-------------|--------------|------|------|------|------|------|------|------|
| 0°-10°          | 188.7         | 3.2         | 4.5          | 0°   | 1994 | 1994 | 1994 | 1994 | 1994 |      |
| 10°-20°         | 541.9         | 9.2         | 13.0         | 5°   | 1987 | 1985 | 1985 | 1984 | 1987 | 189  |
| 20°-30°         | 825.2         | 14.0        | 19.7         | 15°  | 1925 | 1921 | 1916 | 1917 | 1925 | 543  |
| 30°-40°         | 1001.9        | 17.0        | 24.0         | 25°  | 1799 | 1791 | 1786 | 1785 | 1799 | 829  |
| 40°-50°         | 1048.1        | 17.8        | 25.1         | 35°  | 1614 | 1604 | 1595 | 1595 | 1614 | 1010 |
| 50°-60°         | 956.7         | 16.2        | 22.9         | 45°  | 1373 | 1362 | 1351 | 1351 | 1373 | 1059 |
| 60°-70°         | 741.8         | 12.6        | 17.7         | 55°  | 1085 | 1077 | 1061 | 1062 | 1085 | 970  |
| 70°-80°         | 445.4         | 7.6         | 10.7         | 65°  | 763  | 756  | 737  | 741  | 763  | 755  |
| 80°-90°         | 138.1         | 2.3         | 3.3          | 75°  | 430  | 428  | 407  | 414  | 430  | 455  |
| 90°-100°        | 3.3           | 0.1         | 0.1          | 85°  | 126  | 120  | 108  | 118  | 126  | 134  |
| 100°-110°       | 1.3           | 0.0         | 0.0          | 90°  | 9    | 9    | 3    | 13   | 9    | 20   |
| 110°-120°       | 1.2           | 0.0         | 0.0          | 95°  | 2    | 1    | 1    | 1    | 2    | 3    |
| 120°-130°       | 0.9           | 0.0         | 0.0          | 105° | 2    | 1    | 2    | 1    | 2    | 2    |
| 130°-140°       | 0.8           | 0.0         | 0.0          | 115° | 1    | 1    | 2    | 1    | 1    | 1    |
| 140°-150°       | 1.0           | 0.0         | 0.0          | 125° | 1    | 1    | 1    | 1    | 1    | 1    |
| 150°-160°       | 0.9           | 0.0         | 0.0          | 135° | 1    | 1    | 1    | 1    | 1    | 1    |
| 160°-170°       | 0.6           | 0.0         | 0.0          | 145° | 2    | 2    | 1    | 2    | 2    | 1    |
| 170°-180°       | 0.2           | 0.0         | 0.0          | 155° | 2    | 2    | 2    | 2    | 2    | 1    |
| 0°-30°          | 1555.9        | 26.4        | 37.2         | 165° | 2    | 3    | 2    | 2    | 2    | 1    |
| 0°-40°          | 2557.7        | 43.4        | 61.2         | 175° | 2    | 3    | 2    | 3    | 2    | 0    |
| 0°-60°          | 4562.5        | 77.4        | 109.2        | 180° | 2    | 2    | 2    | 2    | 2    |      |
| <b>0°-90°</b>   | <b>5887.8</b> | <b>99.8</b> | <b>140.9</b> |      |      |      |      |      |      |      |
| 90°-120°        | 5.7           | 0.1         | 0.1          |      |      |      |      |      |      |      |
| 90°-150°        | 8.5           | 0.1         | 0.2          |      |      |      |      |      |      |      |
| <b>90°-180°</b> | <b>10.0</b>   | <b>0.2</b>  | <b>0.2</b>   |      |      |      |      |      |      |      |
| 0°-180°         | 5898.0        | 100.0       | 141.1        |      |      |      |      |      |      |      |



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**CANDELA DISTRIBUTION (FULL):**

|      | 0°     | 22.5°  | 45°    | 67.5°  | 90°    | 112.5° | 135°   | 157.5° | 180°   | 202.5° | 225°   |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°   | 1993.7 | 1993.7 | 1993.7 | 1993.7 | 1993.7 | 1993.7 | 1993.7 | 1993.7 | 1993.7 | 1993.7 | 1993.7 |
| 5°   | 1987.1 | 1986.3 | 1987.3 | 1984.6 | 1985.2 | 1985.6 | 1984.7 | 1983.5 | 1984.8 | 1983.5 | 1984.7 |
| 10°  | 1964.5 | 1963.3 | 1962.2 | 1960.9 | 1961.2 | 1961.6 | 1959.0 | 1957.7 | 1958.5 | 1957.6 | 1959.6 |
| 15°  | 1924.7 | 1923.3 | 1922.7 | 1920.3 | 1921.4 | 1920.7 | 1917.9 | 1915.4 | 1916.0 | 1915.7 | 1917.3 |
| 20°  | 1870.1 | 1870.4 | 1868.4 | 1864.2 | 1863.3 | 1861.3 | 1860.9 | 1857.9 | 1859.6 | 1858.4 | 1859.7 |
| 25°  | 1798.8 | 1799.1 | 1796.9 | 1792.3 | 1791.2 | 1790.3 | 1787.5 | 1785.4 | 1785.7 | 1784.5 | 1785.9 |
| 30°  | 1713.5 | 1711.8 | 1709.5 | 1705.6 | 1704.2 | 1702.6 | 1699.4 | 1696.8 | 1697.0 | 1696.6 | 1698.9 |
| 35°  | 1614.3 | 1611.8 | 1609.8 | 1605.7 | 1604.0 | 1599.2 | 1596.2 | 1594.7 | 1595.4 | 1594.3 | 1595.6 |
| 40°  | 1499.8 | 1497.5 | 1497.1 | 1490.1 | 1489.3 | 1484.4 | 1480.7 | 1478.6 | 1478.5 | 1478.7 | 1480.8 |
| 45°  | 1373.4 | 1371.5 | 1368.7 | 1363.6 | 1362.0 | 1357.6 | 1354.0 | 1350.5 | 1351.0 | 1350.3 | 1352.6 |
| 50°  | 1234.6 | 1233.5 | 1231.4 | 1225.9 | 1224.1 | 1218.9 | 1214.9 | 1211.4 | 1210.1 | 1210.5 | 1212.6 |
| 55°  | 1085.2 | 1084.9 | 1082.6 | 1076.4 | 1076.9 | 1070.2 | 1065.0 | 1061.3 | 1061.1 | 1061.1 | 1062.3 |
| 60°  | 927.1  | 927.4  | 925.1  | 919.1  | 919.1  | 912.4  | 907.3  | 903.9  | 902.0  | 901.8  | 904.0  |
| 65°  | 762.6  | 763.9  | 762.6  | 756.8  | 756.1  | 749.8  | 744.0  | 739.1  | 737.3  | 736.8  | 740.4  |
| 70°  | 595.9  | 596.7  | 596.9  | 592.1  | 591.0  | 584.7  | 578.4  | 573.2  | 570.7  | 570.7  | 573.9  |
| 75°  | 429.9  | 430.9  | 432.5  | 428.5  | 428.2  | 422.1  | 416.1  | 410.4  | 407.0  | 408.2  | 411.8  |
| 80°  | 269.3  | 271.7  | 271.8  | 268.5  | 270.2  | 264.4  | 259.1  | 252.7  | 249.8  | 251.2  | 256.1  |
| 85°  | 125.9  | 126.3  | 122.4  | 118.1  | 120.4  | 115.9  | 111.6  | 109.3  | 107.7  | 108.4  | 112.7  |
| 90°  | 8.9    | 8.0    | 6.8    | 5.6    | 8.6    | 7.5    | 6.0    | 4.4    | 3.4    | 5.0    | 8.3    |
| 95°  | 1.6    | 1.7    | 1.2    | 1.1    | 0.8    | 0.8    | 1.0    | 1.5    | 1.4    | 1.4    | 0.9    |
| 100° | 1.6    | 1.5    | 1.1    | 0.9    | 0.8    | 0.8    | 1.0    | 1.6    | 1.7    | 1.5    | 0.9    |
| 105° | 1.5    | 1.3    | 1.1    | 0.8    | 0.8    | 0.9    | 1.2    | 1.8    | 1.7    | 1.9    | 1.0    |
| 110° | 1.3    | 1.1    | 1.1    | 0.8    | 1.0    | 1.0    | 1.4    | 1.8    | 1.7    | 1.8    | 1.4    |
| 115° | 1.1    | 0.8    | 1.1    | 0.8    | 1.0    | 1.1    | 1.7    | 1.6    | 1.7    | 1.8    | 1.6    |
| 120° | 0.8    | 0.5    | 1.1    | 0.8    | 1.0    | 1.2    | 1.8    | 0.8    | 1.7    | 1.2    | 1.7    |
| 125° | 0.8    | 0.5    | 1.1    | 0.8    | 1.1    | 1.2    | 1.8    | 0.8    | 1.0    | 0.9    | 1.8    |
| 130° | 0.8    | 0.5    | 1.1    | 0.8    | 1.2    | 1.4    | 1.8    | 0.8    | 1.0    | 0.9    | 1.8    |
| 135° | 0.8    | 0.5    | 1.1    | 0.8    | 1.3    | 1.5    | 1.8    | 0.9    | 1.0    | 1.0    | 1.8    |
| 140° | 0.8    | 0.6    | 1.1    | 0.9    | 1.5    | 1.7    | 2.0    | 1.1    | 1.1    | 1.2    | 1.8    |
| 145° | 1.5    | 1.3    | 1.1    | 1.6    | 1.7    | 2.0    | 2.0    | 1.4    | 1.4    | 1.3    | 1.8    |
| 150° | 1.7    | 1.8    | 1.7    | 2.0    | 2.1    | 2.2    | 2.3    | 1.7    | 1.7    | 1.5    | 1.8    |
| 155° | 1.7    | 1.8    | 1.8    | 2.0    | 2.3    | 2.4    | 2.6    | 1.9    | 2.1    | 2.1    | 1.8    |
| 160° | 1.9    | 1.8    | 1.8    | 2.0    | 2.7    | 2.6    | 2.8    | 2.2    | 2.1    | 2.1    | 2.1    |
| 165° | 1.8    | 1.8    | 1.8    | 2.0    | 2.8    | 2.8    | 2.9    | 2.2    | 2.1    | 2.1    | 2.1    |
| 170° | 2.1    | 1.9    | 2.0    | 2.1    | 2.9    | 2.8    | 3.1    | 2.2    | 2.1    | 2.1    | 2.0    |
| 175° | 2.1    | 1.9    | 2.4    | 2.4    | 2.9    | 2.8    | 3.1    | 2.2    | 2.1    | 2.1    | 2.0    |
| 180° | 2.1    | 2.1    | 2.1    | 2.1    | 2.1    | 2.1    | 2.1    | 2.1    | 2.1    | 2.1    | 2.1    |



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**CANDELA DISTRIBUTION (continued):**

|      | 247.5° | 270°   | 292.5° | 315°   | 337.5° | 360°   |
|------|--------|--------|--------|--------|--------|--------|
| 0°   | 1993.7 | 1993.7 | 1993.7 | 1993.7 | 1993.7 | 1993.7 |
| 5°   | 1984.1 | 1983.5 | 1986.1 | 1985.8 | 1985.1 | 1987.1 |
| 10°  | 1958.9 | 1958.7 | 1960.6 | 1962.0 | 1962.7 | 1964.5 |
| 15°  | 1916.4 | 1917.2 | 1919.2 | 1921.6 | 1923.1 | 1924.7 |
| 20°  | 1858.6 | 1859.6 | 1862.5 | 1865.5 | 1866.7 | 1870.1 |
| 25°  | 1784.6 | 1785.2 | 1788.9 | 1792.3 | 1796.3 | 1798.8 |
| 30°  | 1697.7 | 1696.4 | 1702.0 | 1705.2 | 1710.7 | 1713.5 |
| 35°  | 1595.4 | 1594.7 | 1599.2 | 1604.3 | 1611.0 | 1614.3 |
| 40°  | 1479.9 | 1479.4 | 1484.3 | 1490.4 | 1496.7 | 1499.8 |
| 45°  | 1352.0 | 1351.1 | 1356.2 | 1362.1 | 1368.9 | 1373.4 |
| 50°  | 1212.5 | 1210.8 | 1217.1 | 1223.8 | 1230.5 | 1234.6 |
| 55°  | 1063.2 | 1061.9 | 1066.9 | 1074.8 | 1079.9 | 1085.2 |
| 60°  | 905.5  | 904.4  | 909.9  | 917.1  | 921.9  | 927.1  |
| 65°  | 741.8  | 741.1  | 747.8  | 754.2  | 759.2  | 762.6  |
| 70°  | 577.3  | 576.3  | 583.1  | 589.2  | 592.4  | 595.9  |
| 75°  | 416.0  | 414.4  | 419.7  | 425.0  | 427.4  | 429.9  |
| 80°  | 261.8  | 260.1  | 265.0  | 267.4  | 268.3  | 269.3  |
| 85°  | 118.6  | 117.5  | 121.4  | 123.8  | 124.6  | 125.9  |
| 90°  | 12.3   | 13.2   | 14.6   | 13.5   | 11.0   | 8.9    |
| 95°  | 0.8    | 1.2    | 1.1    | 1.2    | 1.6    | 1.6    |
| 100° | 0.8    | 0.9    | 0.9    | 1.1    | 1.5    | 1.6    |
| 105° | 0.8    | 0.8    | 0.9    | 1.1    | 1.4    | 1.5    |
| 110° | 1.0    | 0.8    | 0.8    | 1.1    | 1.1    | 1.3    |
| 115° | 1.1    | 0.8    | 0.8    | 1.1    | 0.9    | 1.1    |
| 120° | 1.2    | 0.8    | 0.8    | 1.1    | 0.6    | 0.8    |
| 125° | 1.2    | 0.8    | 0.8    | 1.1    | 0.6    | 0.8    |
| 130° | 1.3    | 0.8    | 0.8    | 1.1    | 0.6    | 0.8    |
| 135° | 1.4    | 0.8    | 0.8    | 1.1    | 0.6    | 0.8    |
| 140° | 1.6    | 1.0    | 0.9    | 1.1    | 0.6    | 0.8    |
| 145° | 1.8    | 1.7    | 1.5    | 1.1    | 1.3    | 1.5    |
| 150° | 2.1    | 1.7    | 1.8    | 2.0    | 1.7    | 1.7    |
| 155° | 2.3    | 1.7    | 1.8    | 1.8    | 1.7    | 1.7    |
| 160° | 2.3    | 1.8    | 2.0    | 2.0    | 1.7    | 1.9    |
| 165° | 2.3    | 1.8    | 2.0    | 2.0    | 1.7    | 1.8    |
| 170° | 2.3    | 2.1    | 2.1    | 2.0    | 2.1    | 2.1    |
| 175° | 2.3    | 2.6    | 2.7    | 2.2    | 2.2    | 2.1    |
| 180° | 2.1    | 2.1    | 2.1    | 2.1    | 2.1    | 2.1    |



Report Generated By 670246072 / DESKTOP-MV3F9LC







— 0°-180°    - - 45°-225°    - - - - 90°-270°    - · - · 135°-315°









(END OF REPORT)